

What is claimed is:

1. An apparatus for recording multimedia data comprising:
  - a receiving unit for receiving a compressed multimedia signal;
  - a decoder unit for decoding the multimedia signal into a data stream having a predetermined format;
  - a data compression unit for reducing a data amount of the data stream by a certain amount and encoding the reduced data stream;
  - a compression select unit for setting a compressibility of the data compression unit; and
  - a storage unit for storing the encoded data.
2. The apparatus of claim 1, wherein the decoder unit comprises:
  - a demodulator for removing a carrier wave from the multimedia signal;
  - a demultiplexer for decoding the multimedia signal into a video signal and an audio signal after the carrier wave is removed from the multimedia signal; and
  - a decoder for decompressing the video signal and the audio signal.
3. The apparatus of claim 2, further comprising a format setting unit for setting the format of the video signal and the audio signal from the demultiplexer to one of PES in a packet unit and TS in a pack unit.
4. The apparatus of claim 1, wherein the data compression unit comprises:

a data conversion unit for reducing a portion of the data of the decompressed video signal and the audio signal according to the compressibility set by the compression select unit; and

an encoder unit for recompressing the video data and the audio data after

the portion of the data is reduced by the data conversion unit.

5. The apparatus of claim 4, wherein the data conversion unit comprises:

a memory for storing the decompressed data from the decoder in a frame unit;

a frame setting unit, enabled by the compression select unit, for removing frames of the data stored on the memory and re-storing the data in the memory; and  
an encoder for compressing the data stream re-stored in the memory.

6. The apparatus of claim 5, wherein the frame setting unit removes even-numbered frames.

7. The apparatus of claim 5, further comprising a format conversion unit, enabled by the compression select unit, for converting the signal format of the video signal held in the memory to 4:2:0 format and re-storing the data in the memory.

8. The apparatus of claim 7, further comprising a scaler, enabled by the compression select unit, for reducing the resolution of the video signal stored in a frame unit on the memory to a certain resolution and re-storing the data in the memory.

9. The apparatus of claim 1, wherein the compression select unit generates a first control signal that causes the video signal and the audio signal to be outputted to any one of the decoder and the storage unit by controlling the demultiplexer, and a second control signal that causes at least one of the frame setting unit, the format conversion unit and the scaler to be enabled by controlling the data conversion unit.

10. The apparatus of claim 1, wherein the predetermined format is selected from the group consisting of MPEG-1, MPEG-2, MPEG-3, and MPEG-4.

11. The apparatus of claim 1, wherein the receiving unit receives a multimedia signal compressed with any one of the compression formats selected from the group consisting of MPEG-1, MPEG-2, MPEG-3, and MPEG-4.

12. A method for recording multimedia data comprising:  
receiving a compressed multimedia signal;  
decoding the multimedia signal into a data stream having a predetermined format;  
reducing a data amount of the data stream by a certain amount and encoding the reduced data stream;  
setting a compressibility of the data as reduced in the reducing step;  
and  
storing the encoded data.

13. The method of claim 12, further comprising the steps of:

removing a carrier wave from the multimedia signal;  
decoding the multimedia signal into a video signal and an audio signal  
after the carrier wave is removed from the multimedia signal; and  
decompressing the video signal and the audio signal.

14. The method of claim 12, further comprising the steps of:  
setting the format of the video signal and the audio signal to one of  
PES in a packet unit and TS in a pack unit.

15. The method of claim 12, further comprising the steps of:  
reducing a portion of the data of the decompressed video signal and the  
audio signal according to the compressibility set; and  
recompressing the video data and the audio data after  
the portion of the data is reduced by the data conversion unit.

16. The method of claim 15, further comprising the step of:  
storing the decompressed data in a memory;  
removing frames of the data;  
re-storing the data; and  
compressing the re-stored data stream.

17. The method of claim 16, wherein even-numbered frames are  
removed during the removing step.

18. The method of claim 16, further comprising the step of converting the signal format of the video signal to 4:2:0 format and re-storing the data.

19. The method of claim 18, further comprising the step of reducing the resolution of the video signal to a certain resolution and re-storing the data.

20. The method of claim 12, further comprising the steps of:  
generating a first control signal that causes the video signal and the audio signal to be outputted to any one of a decoder and a storage unit by controlling a demultiplexer, and a second control signal that causes at least one of the steps selected from the group consisting of removing frames, converting the signal format, and reducing the resolution of the video signal, to be performed.

21. The apparatus of claim 12, wherein the predetermined format is selected from the group consisting of MPEG-1, MPEG-2, MPEG-3, and MPEG-4.

22. The apparatus of claim 12, wherein the receiving step further comprises receiving a multimedia signal compressed with any one of the compression formats selected from the group consisting of MPEG-1, MPEG-2, MPEG-3, and MPEG-4.